

CLAIMS

1. A polypeptide consisting essentially of an amino acid sequence selected from the group consisting of:

[XETFTETWNRFITHTEY]_n,

[XGMLEASEGLDGWIHQY]_n,

[XHQQGGWSTLIEDNIPY]_n, and

[XKQKHPKKVKQAFNPLY]_n,

wherein X and Y are independently from 0 to about 5 naturally occurring amino acids, wherein n is 1 to about 1000, wherein the polypeptide is capable of binding antibody in a specimen from an individual with Epstein-Barr virus (EBV)-associated disease.

2. A method for detecting antibody to the polypeptide of claim 1, which comprises contacting a specimen with the polypeptide and determining whether antibody binds to the peptide.

3. The method of claim 2, wherein the specimen is blood.

4. The method of claim 2, wherein the peptide is detectably labeled.

5. The method of claim 4, wherein the detectable label is selected from the group consisting of a radioisotope, a fluorescent compound, a colloidal metal, a chemiluminescent compound, a bioluminescent compound, a phosphorescent compound, and an enzyme.

6. The method of claim 2, wherein the peptide is bound to a solid phase.

7. A monoclonal antibody to the peptide of claim 1.

8. A hybridoma cell line capable of producing the monoclonal antibody of claim 7.

9. A method of detecting an amino acid sequence comprising the polypeptide of claim 1, the method comprising contacting a specimen suspected of containing the amino acid sequence with the monoclonal antibody of claim 6.

10. The method of claim 9, wherein the detecting is *in vitro*.

11. The method of claim 10, wherein the monoclonal antibody is detectably labeled.

12. The method of claim 11, wherein the detectable label is selected from the group consisting of a radioisotope and a paramagnetic label.

13. The method of claim 9, wherein the detecting is *in vivo*.

14. The method of claim 13, wherein the monoclonal antibody is detectably labeled.

15. The method of claim 14, wherein the detectable label is selected from the group consisting of a radioisotope, a fluorescent compound, a colloidal metal, a chemiluminescent compound, a bioluminescent compound, a phosphorescent compound, and an enzyme.

16. The method of claim 9, wherein the monoclonal antibody is bound to a solid phase.

17. A polynucleotide encoding the polypeptide of claim 1, and polynucleotide sequences complementary thereto.
18. A method of ameliorating Epstein-Barr virus (EBV)-associated disease in an animal which comprises administering to the animal a therapeutically effective amount of the monoclonal antibody of claim 7.
19. The method of claim 18, wherein the monoclonal antibody is used prophylactically.
20. The method of claim 18, wherein the EBV-associated disease is selected from the group consisting of infectious mononucleosis, nasopharyngeal carcinoma, and Burkitts' lymphoma.
21. The method of claim 18, wherein the administration is parenteral.
22. The method of claim 21, wherein the parenteral administration is by subcutaneous, intramuscular, intraperitoneal, intracavity, transdermal, or intravenous injection.
23. The method of claim 18, wherein the administration is at a dosage of about 0.01 mg/kg/dose to about 2000 mg/kg/dose.
24. The method of claim 18, wherein the antibody is administered in combination with effector cells.
25. The method of claim 18, wherein the monoclonal antibody is therapeutically labeled.

26. The method of claim 18, wherein the therapeutic label is selected from the group consisting of a radioisotope, a drug, an immunomodulator, a biological response modifier, a lectin, and a toxin.

27. The method of claim 18, wherein the antibody is administered substantially contemporaneously in combination with a therapeutic agent.

28. The method of claim 27, wherein the therapeutic agent is selected from the group consisting of a radioisotope, a drug, an immunomodulator, a biological response modifier, a lectin, and a toxin.

29. The method of claim 18, wherein the monoclonal antibody is human.

30. A method of ameliorating Epstein-Barr virus (EBV)-associated disease comprising administering to an animal a immunogenically effective amount of a polypeptide of claim 1.

31. A pharmaceutical composition comprising at least one dose of an immunogenically effective amount of a polypeptide of claim 1, in a pharmacological carrier.

32. A pharmaceutical composition comprising at least one dose of a therapeutically effective amount of the monoclonal antibody of claim 7 in a pharmacological carrier.

33. The pharmaceutical composition of claim 32, wherein the monoclonal antibody is human.

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34. A kit useful for the detection of antibody to the polypeptide of claim 1 in a specimen suspected of containing such antibody, the kit comprising carrier means being compartmentalized to receive in close confinement therein one or more containers comprising a container containing the polypeptide of claim 1.

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35. The kit useful for detection of an amino acid sequence comprising the polypeptide of claim 1 in a specimen suspected of containing such sequence, the kit comprising carrier means being compartmentalized to receive in close confinement therein one or more containers comprising

5 → a container containing the monoclonal antibody of claim 7.

36. The polypeptide of Claim 1, consisting essentially of an amino acid sequence selected from the group consisting of:

[QNSETFTETWNRFITHTEHVD]_n, and
[ARQKQKHPKKVKQAFNPLI]_n,

5 wherein n is 1 to about 1000, wherein the polypeptide is capable of binding antibody in a specimen from an individual with Epstein-Barr virus (EBV)-associated disease.

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